Building a Programmable Interface for Physics Codes using Numeric Python

T.-Y. B. Yang, P. F. Dubois, and Z. C. Motteler

Lawrence Livermore National Laboratory

We will report our progress at LLNL in using Numeric Python to build programmable physics applications. Our goal is to create a "plug and play" programmable interface that gives the users of the physics codes a lot of freedom in determining how the integrated codes are run, and also allows the code developers to query and to change, from the Python interpreter, variables buried in the physics modules, which for speed reasons are implemented in C, C++, and Fortran. Examples of Python interfaces for physics, data-storage, and graphics packages will be discussed.